Clear-Com Encore™

RCS-2700, RCU-67, RCS-WIN

Clear-Com®
COMMUNICATION SYSTEMS

RCS-2700 with the RCU-67 Remote

The **RCS -2700** source-assignment panel is the first system available to offer remote-controlled switching of party-line assignments for medium to large size systems. The main switching unit is the RCS-2700, an 8-source by 24-destination assignment panel.

"Sources" are typically the channels from a main or master station or party-line interfaces from a Matrix Plus or similar system. The "destinations" are typically remote stations, beltpacks, or other interfaces.

Once programmed, different presets can be selected with either a contact closure, PC, dedicated remote, or directly from the front panel. The front panel can be "locked" to prevent unauthorized tampering.

Up to six RCS-2700's can be wired together in various configurations for up to a 15-source by 72-destination system. Unlike any previous party-line source- assignment panels, the RCS-2700 is programmable with a PC (Windows 98/586 or better) using its companion software program, or it can be programmed with the optional RCU-67 wired remote. The software offers a "virtual station" where the user can create preset configurations on the PC and then upload them to the RCS-2700. If desired, the PC or wired remote can remain connected during system operation and offer real-time remote control of the system.

By utilizing RS-232 data connections, the PC or RCU-67 can be located up to 300 feet (90m) away from the RCS-2700's location. This provides not only convenience and flexibility in system control, but can also save money during installation: the assignment panels no longer need to be located in the control room area. This shortens intercom cable runs (often improving intercom system performance) and allows more flexibility in location of the panels, both potential cost-savers. More importantly, a system operator can change to a different, pre-pro-grammed system configuration with a single button push or keystroke.

Applications will typically include any facility with at least four channels of party-line and twelve or more "drops" where the assignment set-ups change on a regular basis: performing arts facilities, broadcast studios and remote trucks, convention centers, and houses of worship. Additional applications include simultaneous language translation as well as virtual-reality gaming and teaching/training facilities that use varying-sized teams in simulators.

Features:

- 8x24 programmable assignment panel
- Remote control of frame from up to 300 feet (90 m) away
- Expandable up to 15 "sources" and 72 "destinations"
- Stores fourteen presets in non-volatile memory
- Easy-to-use Graphical User Interface (virtual station)
- Multiple systems can be controlled from the same PC
- Six-character labels in GUI
- Latching relays keep current draw extremely low
- Optional RCU-67 handheld remote with built-in diagnostics
- "TW" compatible
- Front-panel security lockout for RCS -2700
- Easy-to-wire Euro-terminal blocks used for rear-panel connections
- External contact closure input for remote preset selection

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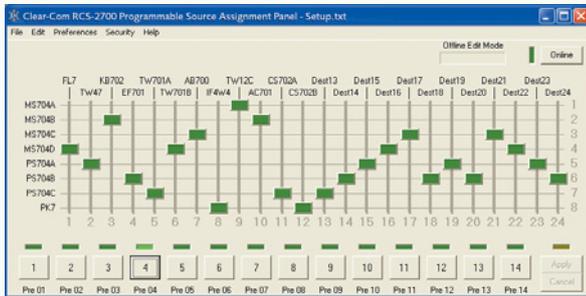
RCS-WIN Software

Color-grouped presets

RCS-WIN is the programming software for use with the RCS-2700 Programmable Source Assignment Panel. The program provides a "virtual" panel or panels on the computer screen, showing the "sources", "destinations", and preset numbers of the RCS system. Designed for intuitive ease of use, even an operator without extensive programming knowledge can quickly program the system, add or change assignments and labels, and make changes in real time.

The software functions on PC's running Windows 95, 98, 2000, ME, or XP. Once programmed, the RCS-2700 does not require a connected computer to function, though the user may keep a PC on-line with the RCS-2700 for remote real-time monitoring and control of the system.

The RCS-WIN screen supplies the user with a view of either eight or fifteen source channels and 24 destinations at a time. In systems with multiple RCS-2700 units, a single mouse click will toggle between the 24-destination sets. To edit within a preset, simply move the slider under a given destination to the desired source position. This can be accomplished by "drag-and-drop" with a mouse or touch pad or with the keyboard's cursor keys. Six-character fields are available to name presets, sources, and destinations. An easy-to-use Copy Preset feature speeds programming of similar presets.
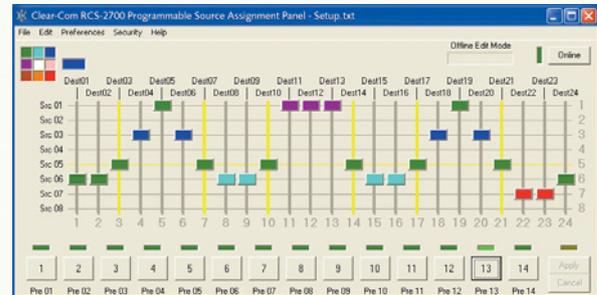
RCS-WIN will function either on-line or off-line. If connected to a system, the user has a choice of whether changes are automatically sent or require an additional, confirming keystroke. Presets can also be written off-line and subsequently loaded into a system. Of course, they can also be saved on disk for back-up and archival purposes. The RCS-2700 unit saves all preset information including source and destination names in non-volatile memory allowing a computer to download the presets from the unit, edit them, and upload them back to the RCS-2700.

Because multiple instances of the application can be active on the PC at the same time, an operator could control multiple systems within a facility from a central location. This is limited only by the number of available communication ports on the computer. Special features of the RCS-2700 include color grouping, Communication Path Tracking, standby edit mode, and security lock-outs. On-screen diagnostics are available to help with system troubleshooting.
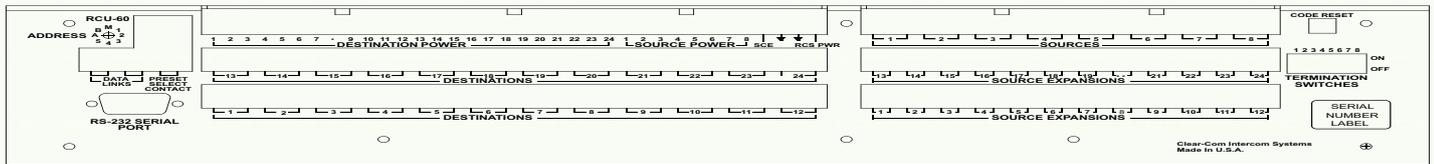
RCS-2700 Rear Panel

PRESETS AND LABELS

Each system, regardless of configuration (1, 2, 3, 4 or 6 RCS-2700's), will store up to fourteen presets, including all labels and assignments. Labels are used to identify the source or destination in the system and are viewable on the PC screen. An assignment directs a selected source (from a main station, matrix PL interface, etc.) to a selected destination such as a remote station or "drop-box", connecting them for bi-directional communication.

LATCHING RELAYS

The RCS-2700 uses latching relays, requiring very little electrical current to operate. Because of this, it operates off of the intercom lines' power and no internal power supply is required. In the event of a power loss, the latching relays remain in position, maintaining the channel assignments until the system comes back on.

SYSTEM WIRING

Easy-to-handle Euro-terminal block connectors are used to wire the intercom system though the RCS-2700. No other special cabling or connectors are required to wire out to the facility or whichever type of breakout box is required.

APPLICATIONS WITH DIGITAL MATRIX INTERCOMS

The RCS-2700 makes a perfect adjunct to an Eclipse Matrix or similar system as a means to control the PL channels that are interfaced into the Matrix frame, when multiple channels of PL are required. The RCS-2700 also features an external contact closure, allowing the user to change a preset from a matrix station or other compatible device.

Technical Specifications, RCS-2700 Programmable Source Assignment Panel:

dBu is an absolute measurement. 0 dBu is referenced to 0.775 volts RMS

Audio
Party-line intercom:	20 - 20KHz (passive switching)

RS-232 Data
Baud rate:	19.2 Kbps
Start Bits:	1 start bit
Stop Bits:	1 stop bit
Parity:	no parity

Crosstalk
<-70 dB

Frequency Response
Port-Port:	20Hz - 20KHz

Switching Matrix Latching Relays
Switching Current:	<=2A

Power Requirements
Input Voltage:	27-33 VDC
Input Current (max)p;	<= 80mA

Rear Panel Connectors
(1) RJ-45
(1) DB-9 for RS-232

Euro-block pins for:
- Sources
- Source expansions
- Source power
- Destinations
- Destination power
- RCS power
- Source 8 continuation
- Data links
- Matrix/contact closure

Rear Panel Controls
Reset button
Unit address switch
Termination switches (8)

Front Panel Connector
RJ-45

Front Panel Controls
Preset
Code
Lock/Unlock

Front Panel Indicators
Double-digit, 8-segment LED readout LEDs for Power, Data, System Expansion, Fault, Lock

Environmental
32˚ to 122˚ F (0˚ to 50˚ C)

Dimensions
19 in. W x 3.5 in.H x 10.75 in. D
(48.3 cm x 8.9 cm x 27.31 cm)

Weight
5.5 lb. (2.5 kg)

Sizes
Single frame, 1x2, 2x1, 2x2, 1x3, 2x3

Maximum RCS-2700 Units
6 RCS-2700 units for a 15-source by 72-destination system

Storage
14 presets with labels (maximum size systems)
Non-volatile memory system maintains all settings and switching matrix connections when powered off.

RCU-67

RS-232 Data
Connector:	RJ-45
Power Requirement:	100mA Avg. Powered by RCS-2700
Front Panel Controls:	Forward and Back buttons each for Source and Destination; Preset Button; Enter Button
Front Panel Indicators:	(2) double-digit, 8-segment LED readout
Dimensions:	4.94" x .94" x 2.11" (126mm x 24mm x 54mm)
Weight:	7lbs (.32kg)

RCS-WIN hardware requirements

Pentium I or better
16 MB RAM, 12 MB Hard Disk Space
Monitor: 800 X 600 Minimum Resolution

RCS-2700 System

Sizes:	single frame, 1x2, 2x1, 2x2, 1x3, 2x3
Maximum Frames:	6, for a 15 Source by 72 Destination Matrix
Storage:	14 presets with labels (maximum size systems.) Non-volatile memory. System maintains all settings when powered off.

Notice About Specifications
While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.